

NIOSH recommends that health care facilities use safer medical devices to protect workers from needlestick and other sharps injuries. Since the passage of the Needlestick Safety and Prevention Act in 2000 and the subsequent revision of the OSHA Bloodborne Pathogen Standard, all health care facilities are required to use safer medical devices.



SAFER MEDICAL DEVICE IMPLEMENTATION IN HEALTH CARE FACILITIES

SHARING LESSONS LEARNED

NIOSH has asked a small number of health care facilities to share their experiences on how they implemented safer medical devices in their settings. These facilities have agreed to describe how each step was accomplished, and also to discuss the barriers they encountered and how they were resolved, and most importantly, lessons learned.



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Phase 5: Implement and Monitor the Device

Description of Facility

Our hospital is licensed for approximately 300 beds and serves a diverse patient population ranging from neonates to geriatric patients. There are three critical care units including a level III+ neonatal intensive care unit (NICU). The hospital has one of the highest volumes of surgical cases in the region. Surgical services are provided through an in-patient general surgical center and two ambulatory surgical centers. A sub-acute unit, a medical-psychiatric unit, and a dialysis unit are on site. Specialty services include Neonatology, Ophthalmology, an Endoscopy Center, and a comprehensive Oncology Service. The community recognizes the OB Service as a center of excellence. Outpatient diagnostic and treatment facilities include a Cardiac Catheter Laboratory, Radiation Oncology, Diabetes and Nutrition Center, and a Wound Care Center. A community health center offers 7 day a week urgent care services to inner-city residents, in addition to providing care in a number of specialties including pediatrics, and HIV care.

Future Plans

We were not able to identify a product acceptable to our surgeons. However, there are new products currently under development by the medical device manufacturers. We are aware of at least one new safety scalpel which may be able to satisfy our surgeons' requirement for a heavier device. The product has a metal handle that approximates the weight of a traditional scalpel holder. It is designed so that the blade will not be touched when it is loaded or unloaded from the holder.

ECRI (<http://www.ecri.org/>) will be publishing a 2nd edition of its Sharps Safety and Needlestick Prevention guide in the Fall of 2003. It is expected the revised guide will also provide new recommendations regarding the relative merits of the various safety scalpel products.

Sharps injury data will continue to be shared with operating room staff and physicians in an attempt to make them more aware of the scope and magnitude of the problem. Information sharing of bloodborne pathogen exposures should provide the framework and impetus for implementing changes in work practices and devices. Until a safety scalpel is implemented, we will enforce a "neutral zone" (*hands-free technique*) policy for use when surgical instruments are passed from person to person. This technique employs a tray or some other means to pass sharps, so that hands are kept physically separated from the hazard. At least one published study has shown this practice to be effective in reducing the incidence of injury associated with hand-to-hand transfer of sharps in the surgical setting. (*Occup Environ Med* 2002 Oct;59(10):703-7)

Although our preference would be to await published accounts of safety scalpels before attempting another pilot study, we may pursue a clinical trial independently. If another evaluation is conducted, we would spend considerable time allowing physicians to handle the device under investigation before proceeding to a trial in the clinical environment. It is hoped we could overcome resistance to a safety engineered scalpel, by introducing more slowly and gradually among physician users.

Networking with other organizations both through regional communication and the national APIC listserv will remain an important means to identify and select new devices to trial. It is hoped that better products will pave the way to greater acceptance by clinicians and ultimately allow us to implement a safety scalpel with the potential to reduce sharps injuries in the operative setting.